CARPATHIAN JOURNAL OF FOOD SCIENCE AND TECHNOLOGY

journal home page:**http://chimie-biologie.ubm.ro/carpathian_journal/index.html**

SURVEY OF FRAUD IN THE FOODS THAT WERE USED IN ITS PRODUCTION OF SAFFRON

Razzagh Mahmoudi[1]✉, Peyman Ghajarbeygi[2], Ali Sadeghi Niaraki[3], Masoud Kazeminia[4]

[1] *Medical Microbiology Research Center, Qazvin University of Medical Sciences, Qazvin, Iran.*
[2]*Health Products Safety Research Center, Qazvin University of Medical Sciences, Qazvin, Iran.*
[3]*Corporate officer of Food, Hygienic & Cosmetic Control Laboratory, Qazvin University of Medical Sciences, Qazvin, Iran.*
[4]*Department of Food Hygiene and Safety, School of Health, Qazvin University of Medical Sciences, Qazvin, Iran.*
✉*r.mahmodi@yahoo.com*

https://doi.org/10.34302/crpjfst/2020.12.2.14

Received:
20 January 2019
Accepted:
30 April 2020

Keywords:
Saffron;
Food fraud;
Qazvin Province.

ABSTRACT

Food fraud is referred to as the intentional substitution addition tampering or misrepresentation of food. Food fraud is a broader term than the economically motivated adulteration. Different method are performed of fraud for instances include carcinogen colorants in foods, melamine in milk, species swapping of seafood, dilution of fruit juices, unauthorized repackaging**.**Although the vast majority of food fraud incidents do not pose a public health risk, some cases have resulted in actual or potential public health risks such as continuous consumption a substance that can be used as the artificial colors.It is not known conclusively how widespread food fraud is in Iran or worldwide therefore this deficit gave us the motivation for our review.In the total of 203 food samples tested in 72 (35.46) samples were detected food fraud therefore this survey showed that economically motivated food fraud and adulteration was an emerging and serious food safety problem in Iran.The results of the survey can be used not only to analyze food safety risks but also to prioritize target areas for food policy-making and enforcement of food safety regulation.

1.Introduction

1.1. Saffron

Saffron, the dark-red and dried stigma of Crocus sativus L,. very valuable for its Special aroma, color, taste and medicinal properties, belongs to the Iridaceae family and is native to Europe, Asia, and the Middle East such as Iran. At the moment considered the world's most expensive spice (Baghalian *et al*., **2010**; Fernández and Pandalai *et al*., **2004**). Nowadays, saffron are used almost in all cases for cooking purposes to give color and flavor to food products. With regards to the total amount of saffron production**,** Iran is the biggest producer country in the world, After the Iran located countries Greece, Morocco, India, Spain and Italy (Maggi *et al*., **2003**). Saffron has also been cultivated in Turkey, Azerbaijan, and China. But the saffron mine is Iran because now more than 90% of the total saffron produced in the world is produced in Iran (Ghorbani *et al*., **2008**).

The constituents of saffron that are considered pharmacologically active and main contains volatile agents (e.g,. safranal), bitter principles (e.g., picrocrocin), picrocrocin is the glycoside precursor of safranal (2,6,6-trimethyl-**1**,3-cyclohexadiene-**1**-